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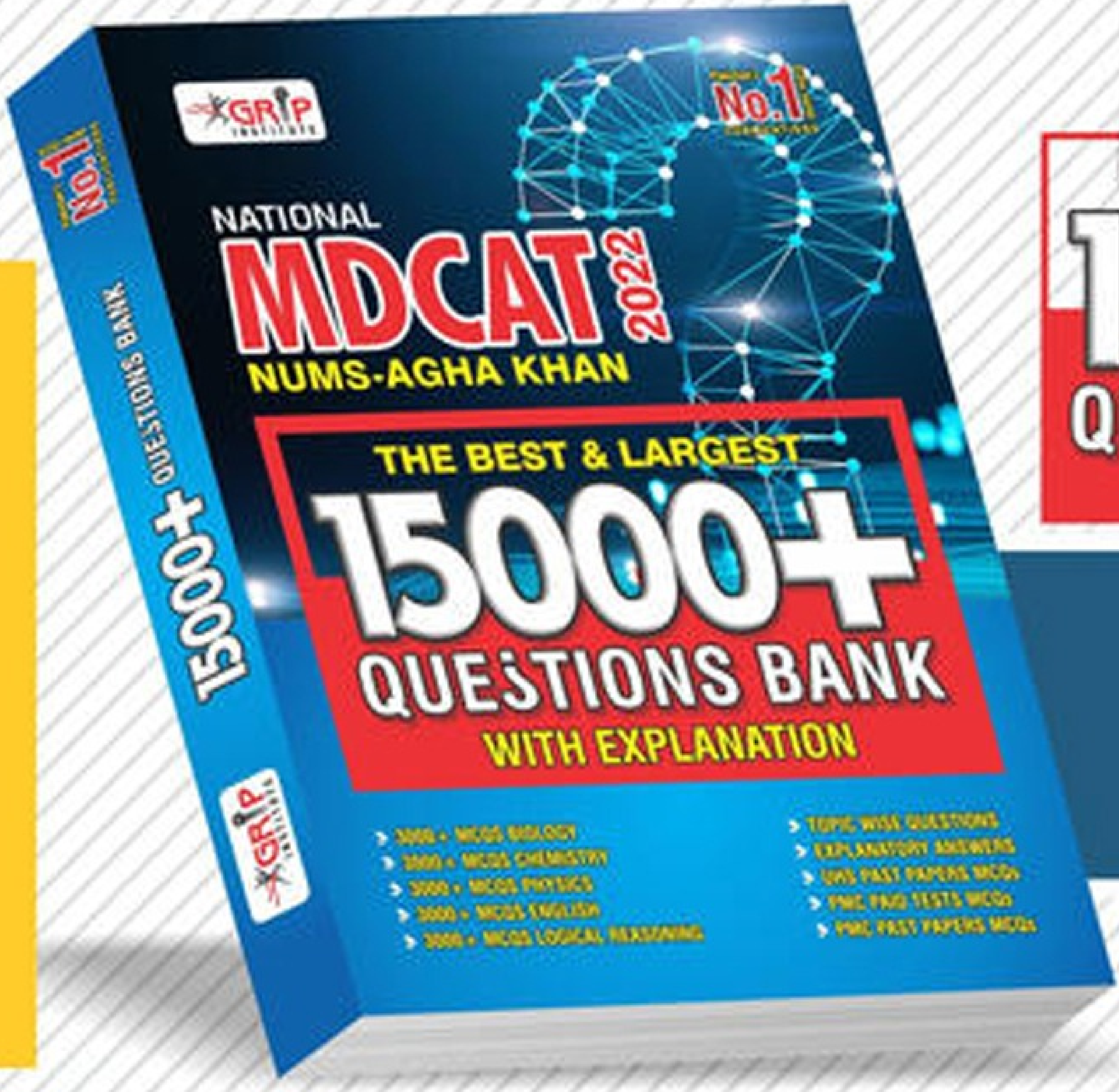

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Q.1 Optimum pH for salivary amylase is

A) 5.80
B) 4.80
C) 6.80
D) 7.80

Q.1 When coenzyme combines with apoenzymes, it is called (Past Paper)

A) Holoenzyme

B) Cofactor
C) Isoenzyme

D) Prosthetic group

2. The nature of an enzyme is

(a) Lipid

(b) Vitamin

(c) Carbohydrate

(d) Protein

Q.2 One of the following is correct about enzymes

A) Globular proteins
B) They Increase efficiency of reaction
C) They are biologically active
D) All of these

3. In alcoholism, this enzyme is elevated

(a) acid phosphatase

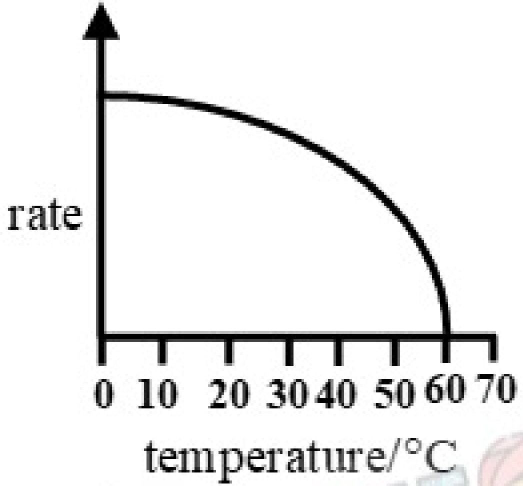
(b) hepatitis

(c) serum glutamate pyruvate transaminase

(d) glutamyl transpeptidase

Q.3 **Which graph show inhibition ?**

A)



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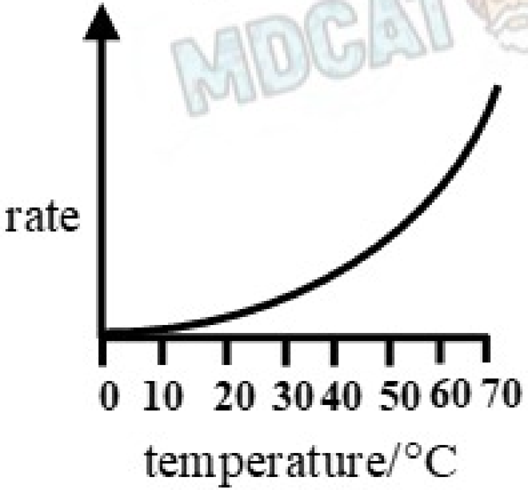

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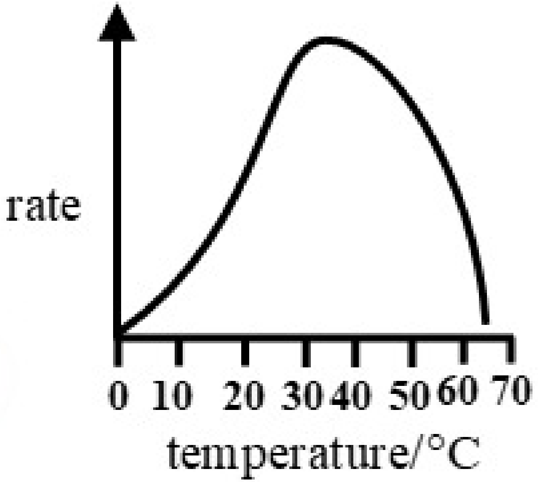

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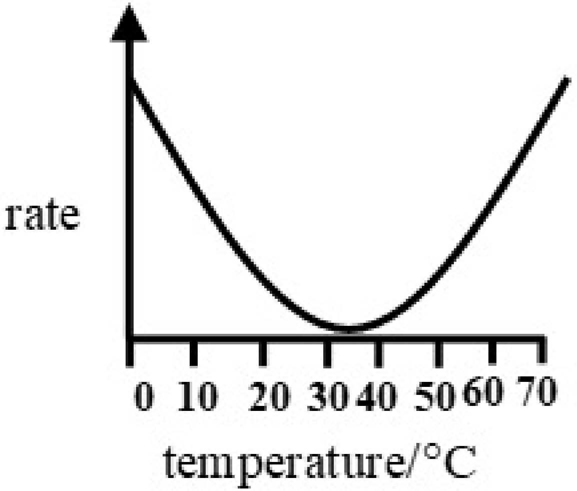


(A ans)

4. What is the count of genes that determine the synthesis of one enzyme?

(a) One

(b) Four

(c) Eight

(d) Sixteen

Q.4 There are some nucleic acids that behaves like enzymes and are called

A) DNAase
B) RNAase
C) Endonuclease
D) Ribozymes

5. The coenzyme is: (Fedral)

A. Often a metal
B. always a protein
C. often a vitamin
D. always an inorganic compound

Q.5 Which one of the following statement about enzymes is true?

1. Enzymes are proteins whose three dimensional shape is key to their functions

2. Enzymes speed up reactions by lowering activation energy

3. Enzymes are highly specific for reactions

4. Enzyme activity affected by change in temperature and pH.

A) All except 2
B) All except
C) All except 3
D) All

6. An enzyme that joins the ends of two strands of nucleic acid is:

A. Polymerase
B. ligase
C. synthetase
D. Helicase

Q.6 **Which one is correct?**

A) $E + S \rightarrow ES \rightarrow EP \rightarrow EP$

B) $E + S \rightarrow ES \rightarrow EP \rightarrow E + P$

C) $E + S \rightarrow ES \rightarrow EP \rightarrow E - P$

D) $E + S \rightarrow ES \rightarrow EP \rightarrow E - P$

7. Which of the following is produced with the combination of apoenzyme and coenzyme:

A. Holoenzyme
B. Enzyme substrate complex
C. Prosthetic group
D. Enzyme product complex

Q.7 Diastase takes part in digestion of which one:

A. Protein
B. Starch
C. Amino acids
D. Fat

8. Blocking of enzyme action by blocking its active site is called as:(Fedral)

A. Allosteric inhibition
B. Feedback inhibition
C. Competitive inhibition
D. Non-competitive inhibition

Q.8 The enzyme which hydrolyses starch to maltose is:

A. Protease
B. Amylase
C. Lactase
D. Maltase

9. Mg^{+2} is an inorganic activator for enzymes: (Fedral)

A. Phosphatase

B. Carbonic anhydrase

C. Amylase

D. Enterokinase

Q.9 This enzyme was first isolated and purified in the form of crystals:

A. Urease

B. pepsin

C. Amylase

D. Ribonuclease

10. Which among them is a cofactor:

A. Inorganic ion

B. Organic molecule

C. Both A and B

D. None of these

Q.10 This statement about enzymes is true:

A. Enzymes accelerate reactions by lowering the activation energy
B. Enzymes are proteins whose three-dimensional form is key to their function
C. Enzymes do not alter the overall change in free energy for a reaction
D. All of these

Q.11 If frequent quantity of substrate is present, then adding enzymes during a biochemical reaction, the rate of enzyme action will initially:

A) Decreases
B) Attains saturation
C) Remains constant
D) Increases

Q.11 Zn^{+2} is an inorganic activator for enzymes: (Fedral)

A. Carbonic anhydrase
B. Phosphatase
C. Chymotrypsin
D. Maltase

Q.12 The optimum pH for sucrase and enterokinase is:

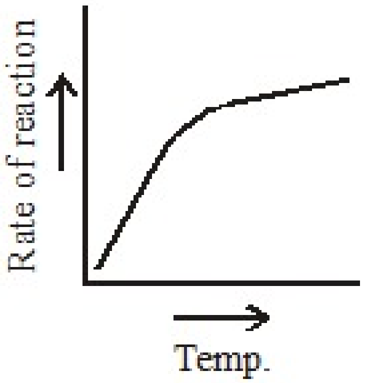
A) 5.50 and 4.50 respectively
B) 4.50 and 5.50 respectively
C) 4.50 and 6.50 respectively
D) 5.50 and 7.60 respectively

Q.12 Inhibition of succinate dehydrogenase by malonate is an example of

A) Non-competitive inhibition
B) Negative feed back
C) Allosteric inhibtion
D) Competitive inhibition

Q.13 Which of these graphs shows the effect of temperature on rate of enzyme controlled reaction?

A)



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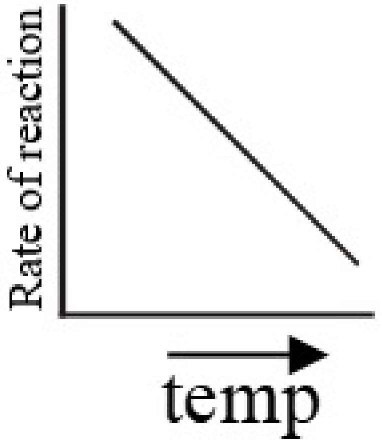

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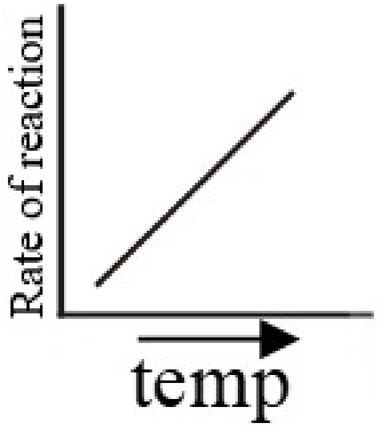

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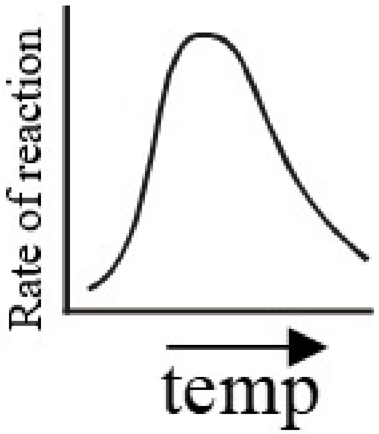


ATP is a

a- Coenzyme

b- Nucleotide

c- energy currency

d- All

Q.13 Protease breaks down protein to amino acids. In the ‘lock and key’ hypothesis, what is the lock and what is the key?

	Lock	Key
A	Amino acid	Protease
B	Protease	Amino acid
C	Protease	Protein
D	Protein	Protease

Q.14 The catalytic site is activated:

A) When the specific substrate is recognized
B) After the formation of the products
C) Before the loss of globular structure
D) When once the enzyme-substrate complex has formed

Q.14 Not true for co-factor of enzyme

A) Serve as bridge

B) Provide source of chemical energy

C) Is non protein

D) React with substrate

Q.15 The linkages developed by the reversible inhibitors with enzyme :

A) Strong linkages
B) Weak linkages
C) No linkages
D) Linkage of medium strength

Q.15 Which one of the following bonds permanently to the active site of an enzyme? (Fedral)

A) Allosteric inhibitor
B) Competitive inhibitor
C) Non-competitive inhibitor
D) Co-enzyme

Q.16 NAD$^+$ is an important:

A) Nucleotide

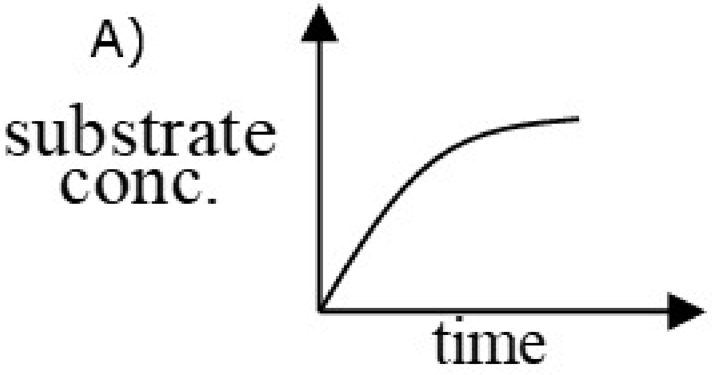
B) Prosthetic group

C) Coenzyme

D) Amino acid

Q.16 Which graph represent the changes in the substrate concentration during the course of an enzyme calalysed reaction:

A)



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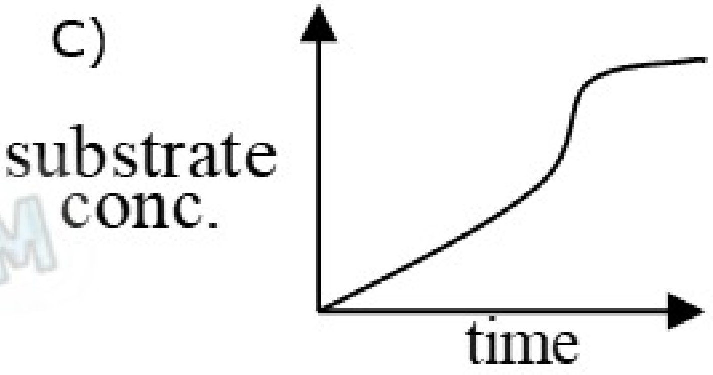

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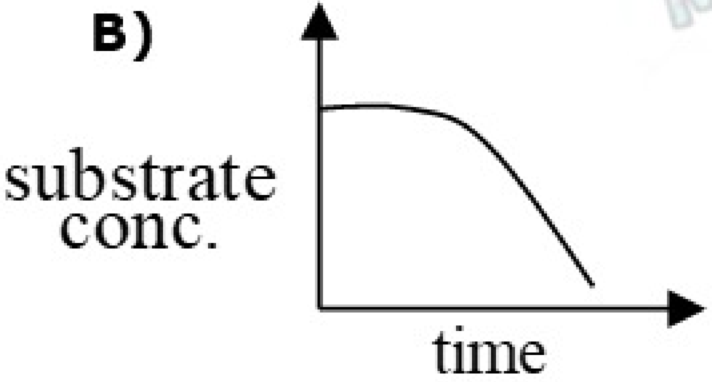

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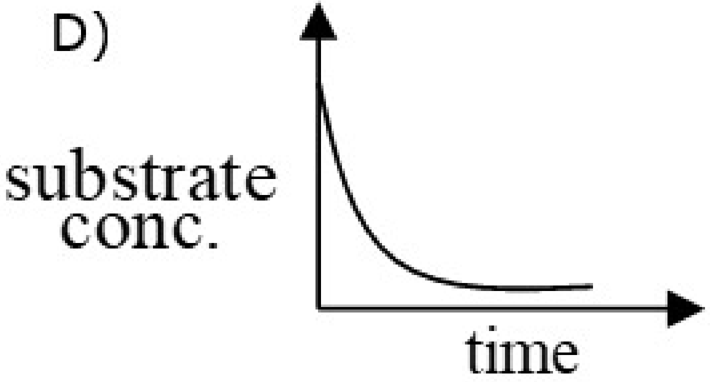


Q.17 Which type of inhibitors have structural similarity with substrate?

A) Irreversible

B) Competitive reversible

C) Non-competitive reversible

D) Competitive irreversible

Q.17 Mg^{++} ions are needed for the activity of enzyme Hexokinase.

Which of the following describes the role of Mg^{++} ions:

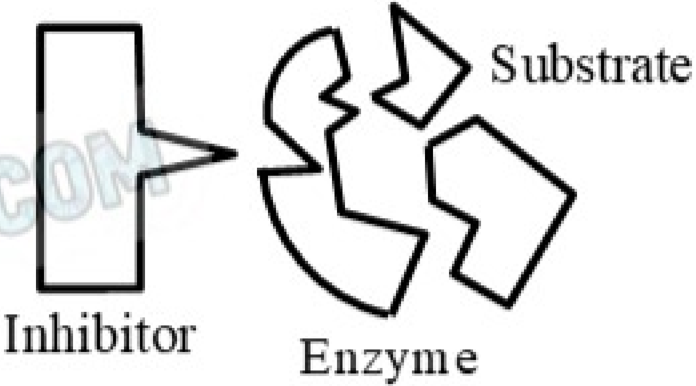
A) Allosteric inhibitors

B) Cofactors

C) Co-enzyme

D) Prosthetic group

Q.18 The diagram represents __________ inhibitor.



A) Non-competitive
B) Irreversible
C) Competitive
D) Isosteric

Q.18 **Optimal temperature of enzymes present in human body is**

A) 27° C

B) 37°C

C) 47°C

D) 30°C

Q.19 Enzymes are synthesized by:

A) Lysosomes

B) Ribosomes

C) Chromosomes

D) Peroxisomes

Q.19 Which one of the following bonds permanently to the active site of an enzyme

A) Allosteric inhibitor
B) Co-enzyme
C) Competitive inhibitor
D) Non competitive inhibitor

Q.20 For every 10°C rise in temperature above 40°C the rate of enzyme catalyzed reaction will

A) Decreases

B) Becomes double

C) Increase

D) Suffers no effect

Q.20 A chemical substance which can react with the enzyme but is not transformed into products and thus blocks the active site temporarily or permanently is called

A) Co-enzyme
B) Inhibitor
C) Prosthetic group
D) Co-factor

Q.21 Which of the following enzyme is used in biological detergents to remove the stains of oily material from clothes?

A) Amylase
B) Lipase
C) Protease
D) Sucrase

Q.21 **By ________ the enzyme molecules an ________ in the number of active sites take place**

A) Increasing, decrease
B) Decreasing, increase
C) Increasing, increase
D) Decreasing, decrease

Q.22 An enzyme is a: (Past paper)

A) One dimensional fibrous protein

B) Three dimensional fibrous protein

C) Two dimensional fibrous protein

D) Three dimensional globular protein

Q.22 Absence of enzymes that are involved in catabolism of glycogen causes:

A) Phenyl ketonuria
B) Glycogenosis
C) Tay sachis disease
D) Sickle cell anaemia

Q.23 Which specific site of the enzyme helps to form enzyme-substrate complex?

A) Catalytic site
B) Binding site
C) Active site
D) Peptidyl site

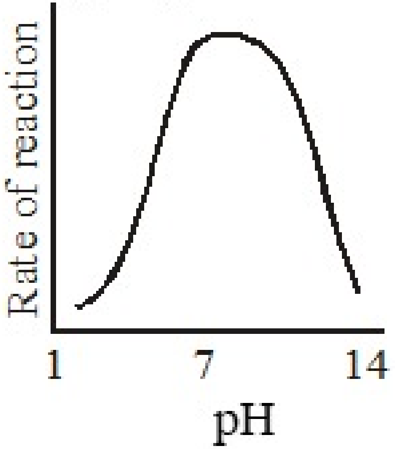
Q.23 Melonic acid is an example of

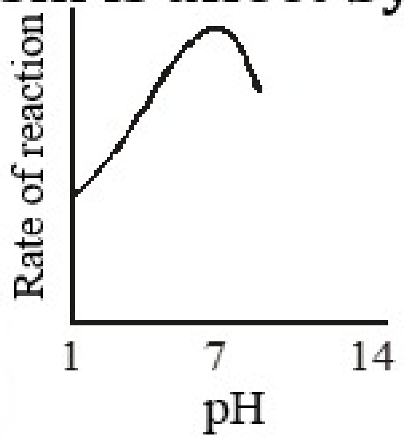
A) Irreversible inhibitor
B) Reversible inhibitor
C) Competitive inhibitor
D) Non-competitive inhibitor

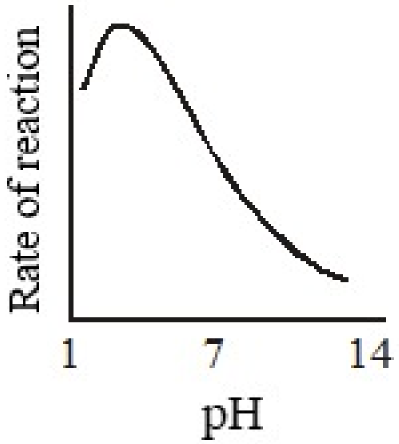
Q.24 Which of the following result in the denaturation of the enzymes?

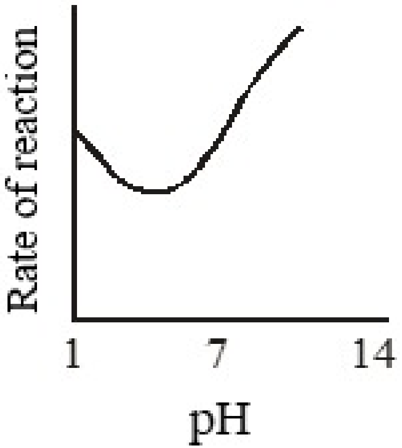
A) Extreme pH
B) Frequent substrate concentration
C) Extreme temperature
D) Extreme pH and extreme high temperature

24 **Which graph show how the rate of reaction of pepsin is affect by pH:**

A) 

C) 

B) 

D) 

Q.25 The inhibitors that occupy the active sites by forming covalent bonds:

A) Reversible inhibitors
B) Competitive inhibitors
C) Irreversible inhibitors
D) Non-competitive inhibitors

Q.25 One of the following enzymes show the greatest substrate specificity

A) Maltase
B) Lipase
C) Pepsin
D) Trypsin

Q.26 During competitive inhibition, the active site of succinic dehydrogenase is occupied by:

A) Succinic acid

B) Malonic acid

C) Fumaric acid

D) Acetic acid

Q.26 Lock and key model was proposed by

A) Emil Fischer
B) Koshland
C) Robert Hook
D) Robert Brown

Q.27 Biological proteins which catalyze a biochemical reaction and remain unchanged after completion of reaction are called

A) Cofactor
B) Enzymes
C) Co-enzymes
D) Activators

Q.27 Which one of the following can act as coenzyme?

A) Mg^{2+}

B) Haem

C) Zn^{2+}

D) Nicotinamide